

wall in Chemilly, a small village near Vesoul, the main town of Haute-Saône, a Department in northeastern France. One was the cultivar Ronde de Bordeaux and the other Madelaine des Deux Saisons. Both grew well during the warm summer and indeed grew into the autumn before being struck by frost (-5°C at Vesoul on the night of 15 October). On the night of 20 December the temperature sank to -18.5°C at Vesoul. Thereafter both young trees seemed in dire, possibly moribund state.



Fig. 3. The fig cultivar Madelaine des Deux Saisons at Chemilly with shoots strongly growing from the base in early July 2010.

However, come the spring of 2010 and they both began to sprout from the base and by mid June looked vigorous and on 7 July the largest shoot of three on Madelaine des Deux Saisons was 0.8m above soil level (Fig. 3). Baud (2007) wrote that that cultivar is very resistant to cold. A free standing Fig tree (cultivar unknown) of about six years of age in the next door garden was about 2m tall, single-trunked and well branched in the summer of 2009. It too was killed to the base but sprouted several shoots in the spring of 2010.

These observations fit well with the details concerning temperature tolerance given by Baud (2007). On page 24 he stated [Translated from French] "To damage the young stems of the year the temperature has to go down to about -12 to -14°C. Temperatures of -16 to -18°C will destroy all the aerial parts. When the aerial parts are frozen the tree produces new shoots from the base next year." The Common Fig is an adaptable, resilient tree, a point already made by Browicz (1982).

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First record of harlequin ladybird *Harmonia axyridis* (Pallas, 1773), (Coleoptera: Coccinellidae) for Glasgow

Norman L. Storie

RSPB Scotland, 10 Park Quadrant, Glasgow G3 6BS
E-mail: norman.storie@rspb.org.uk

On 28 October 2009 on the edge of Kelvingrove Park, Glasgow (NS575665) I collected a larval ladybird (see Fig 1). My attention had been drawn to it by a series of red spines on the sides of the abdomen. On closer inspection with a 10x hand lens, four pale spines on the mid abdominal dorsum became obvious. Reference to the UK Ladybird web site (www.ladybird-survey.org) indicated that the latter feature was indicative of harlequin ladybird *Harmonia axyridis*. The larva was photographed (Fig 1) and the photographs passed to various parties for their comments and identification. In due course, the Harlequin Ladybird Survey team, a collaboration between the University of Cambridge, Anglia Ruskin University and the Centre for Ecology and Hydrology, confirmed that this specimen was a harlequin ladybird. The record would appear to be the first of the species for Glasgow and the first "wild" larva to be found in Scotland. The specimen has been deposited with the Hunterian Museum, University of Glasgow (GLAHM 141553).

Native to Central Asia, the harlequin ladybird was first introduced to North America in 1916 as a biocontrol agent, principally of aphids, although it only became considered as established on the continent in 1988 (Koch 2003). In Western Europe it was first used for the same purpose in France in 1982 and since 1995 has been widely released (Brown et al 2008a). Now considered an invasive alien species on both continents, the harlequin ladybird was first recorded in Britain in 2004. Having been found in south-east England, this individual may have arrived accidentally or by natural dispersal from continental Europe. The species is also known to have arrived in Britain from Canada (Brown et al 2008b). Since 2004 the species has spread rapidly throughout much of England. The first Scottish record was in October 2007 in Orkney. It was almost certainly brought there in packaging arising from Hertfordshire (Holroyd et al, 2008). A further Orkney record in August 2008 is thought to have arrived with fruit or vegetables brought from the mainland (Ribbands et al, 2009). A larva in 2007 found at the Royal Botanic Gardens Edinburgh is similarly considered to have arrived with plant material (Peter Brown pers comm.). To the end of 2008, the latest year for which data is available, there have been nine accepted records of the species in Scotland.



Fig 1. Harlequin Ladybird larva, Kelvingrove Park October 2009. Photograph: Sandy Grant.

The Glasgow specimen was found on a metal street lighting junction box the sun-warmed surface of which was covered with many aphids and other small insects. Several adult ladybirds of three species were also present: 2-spot *Adalia bipunctata*, 10-spot *A decempunctata* and orange *Halyzia sedecimguttata*. Nearby on the adjacent park railings were two cream-spot *Calvia quattuordecimpunctata* and a single 7-spot *Coccinella septempunctata*. The harlequin larva may have been attracted by the aphids as were the other species, although the orange ladybird is a mildew feeder. In addition to being aphidophagous, the harlequin is a predator of other coccinellids and concern has been expressed that the arrival of the species may have a detrimental effect on native ladybird populations (Brown et al 2008a).

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Hedgehog ticks, *Ixodes hexagonus* Leach, found attached to two dung beetles, *Geotrupes stercorosus* (Scriba), on Inchlonaig, Loch Lomond.

Joana Cristovao

c/o Division of Ecology and Evolutionary Biology,
Graham Kerr Building, University of Glasgow, G12
8QQ.

E-mail: suthora_webbiana@hotmail.com

Ticks (Arachnida, Acari, Ixodoidea) are ectoparasites that feed on blood and tissue fluids of mammals, reptiles and birds using their chelicerae and enzymes from salivary glands. The anterior part of the tick, the prosoma, bears chelicerae (structures for tearing skin), palps, the hypostome for attachment and four pairs of walking legs, although there are only three in the larval stage (Savory, 1977). The life cycle consists of three stages, the larva and nymph and mature adult. Ticks moult between the stages and drop from their hosts after feeding in order to moult. The common sheep tick, *Ixodes ricinus* (Linnaeus), for example, exhibit host-seeking behaviour, elevating themselves by climbing tall grasses or scrub usually to position themselves for rapid attachment to a passing host, and will respond to stimuli such as carbon dioxide, heat and odours from a potential host (Sonenshine, 1991).

The three species of *Ixodes* tick that are commonly found in Scotland (Arthur, 1963) are the sheep tick *I. ricinus*, the small mammal tick, *I. trianguliceps* Birula, (usually found on shrews), and *I. hexagonus*, the hedgehog tick (also commonly found attached to deer, dogs, birds and humans). Some ticks re-find their host after each moult within the nest or den of their hosts, especially those tick species that are restricted to a single host or a small number of related hosts (Cloudsley-Thompson, 1958).